

**UNITED STATES DEPARTMENT OF COMMERCE****United States Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

AS

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/350,060	07/08/99	CHAPMAN	D W9443-02

IM52/0522

CHARLES A CROSS
W R GRACE & CO - CONN
PATENT DEPARTMENT
7500 GRACE DRIVE
COLUMBIA MD 21044-4098

EXAMINER

AHMED, S

ART UNIT

PAPER NUMBER

1773

6

DATE MAILED:

05/22/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/350,060

Applicant(s)
Chapman

Examiner
Sheeba Ahmed

Art Unit
1773

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Mar 20, 2001

2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-30 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-30 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

Art Unit: 1773

DETAILED ACTION

Request for reconsideration

1. Applicants request for reconsideration submitted on March 20, 2001 (Paper No. 5) has been entered in the above identified application.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

2. Claim 1-3, 5-8, 13-20, 23, 24, and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes et al. (US 5,660,928) in view of Alexander et al. (US 3,007,878).

The above rejection is maintained for the reasons of record as set forth in Paragraph No. 1 of the Office Action mailed on September 19, 2000 (Paper No. 3).

3. Claims 10-12, 21, 22, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes et al. (US 5,660,928) in view of Alexander et al. (US 3,007,878) and Williams et al. (US 5,494,759).

The above rejection is maintained for the reasons of record as set forth in Paragraph No. 2 of the Office Action mailed on September 19, 2000 (Paper No. 3).

Art Unit: 1773

4. Claims 1-3, 5-10, and 13-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al. (EP 0586846B1).

The above rejection is maintained for the reasons of record as set forth in Paragraph No. 3 of the Office Action mailed on September 19, 2000 (Paper No. 3).

5. Claims 1-3, 8-16, and 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koch et al. (DE19534327A1).

The above rejection is maintained for the reasons of record as set forth in Paragraph No. 4 of the Office Action mailed on September 19, 2000 (Paper No. 3).

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes et al. (US 5,660,928) in view of Alexander et al. (US 3,007,878) and Vassiliades et al. (US 4,115,474).

The above rejection is maintained for the reasons of record as set forth in Paragraph No. 5 of the Office Action mailed on September 19, 2000 (Paper No. 3).

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al. (EP 0586846B1) in view of Vassiliades et al. (US 4,115,474).

The above rejection is maintained for the reasons of record as set forth in Paragraph No. 6 of the Office Action mailed on September 19, 2000 (Paper No. 3).

Art Unit: 1773

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koch et al. (DE19534327A1) in view of Vassiliades et al. (US 4,115,474).

The above rejection is maintained for the reasons of record as set forth in Paragraph No. 7 of the Office Action mailed on September 19, 2000 (Paper No. 3).

Response to Arguments

9. Applicant's arguments filed on March 20, 2001 have been fully considered but they are not persuasive. Applicants traverse the rejection of claims 1-3, 5-8, and 10-30 under 35 U.S.C. 103(a) as being unpatentable over Stokes et al. (US 5,660,928) in view of Alexander et al. (US 3,007,878) and submit that Stokes does not use a non-ionic polymer and further does not mention the use of cationic pigments and Alexander is silent as to including their cationic pigments in ink receptive coatings. First, the Examiner would like to point out that Stokes does in fact use polyvinyl acetate as their latex polymer which is equivalent to the non-ionic latex polymer of the claimed invention and the Examiner takes the position that the use of any polyvinyl acetate would lead to equivalent results absent a showing of criticality. In this case, no experimental or other comparative data has been presented on the record to conclusively show that the use of a non-ionic polyvinyl acetate leads to unexpected results. Second, in response to Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in

Art Unit: 1773

the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Stokes et al. specifically disclose the use of hydrophillic silica having a pore volume of about 1 to about 2 cc/g and Alexander et al. specifically disclose colloidal, positively charged particles of a silica core coated with an aluminum oxide which are used in coating compositions to provide better adhesion.

The Applicants further assert that Alexander uses colloidal silica which is nonporous and submit Iler's "The Chemistry of Silica" to support such an assertion. However, the Examiner would like to point out that Iler's "The Chemistry of Silica" simply states that "colloidal silica are generally nonporous *if grown in alkaline solution and formed at elevated temperature*" but still disclose that these colloidal silica have a density of 2.0-2.3 g/cm³ (*equivalent to cc/g*) which meets the porosity limitations of the claimed invention.

Applicants further traverse the rejection of claims 1-3, 5-10, and 13-30 under 35 U.S.C. 103(a) as being unpatentable over Abe et al. (EP 0586846B1) and the rejection of claims 1-3, 8-16, and 20-29 under 35 U.S.C. 103(a) as being unpatentable over Koch et al. (DE19534327A1) and submit that neither Abe nor Koch employ highly porous pigments. The Examiner disagrees with the Applicants assertion that the pigments disclosed by Koch and Abe do not meet the porosity limitations of the claimed invention. The Examiner would like to point out that with regards to Abe the Examiner has taken the position that the disclosed cation-modified silica coated with a metal oxide such as aluminum oxide must have the claimed pore volume given

Art Unit: 1773

that the chemical composition and the structure of the silica disclosed by Abe et al. and that of the claimed invention are identical. Furthermore, Koch discloses the use of an inorganic pigment having a cationic charge and a pore volume of 0.1 to 0.9 ml/g (*equivalent to cc/g*) and thus meets the porosity limitations of the claimed invention.

Hence, the above rejections are maintained for the reasons of record.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Sheeba Ahmed whose telephone number is (703) 305-0594.

Art Unit: 1773

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Paul Thibodeau, can be reached at (703) 308-2367. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-5436.



Sheeba Ahmed
May 20, 2001



Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700